



ALASKA
**Chadux
Network**
PREVENT / RESPOND / PIONEER

OPERATING PROCEDURES FOR NONTANK VESSELS

APRIL 2022

Prepared by:
Alaska Chadux Network
2347 Azurite Court
Anchorage, Alaska 99507

VESSEL MASTER CHECKLIST PRIOR TO ALASKA EEZ ENTRY

1. Per APC requirements, each participating vessel shall have a copy of the following documents onboard prior to entering Western Alaska and/or Prince William Sound Captain of the Port Zones (download documents at www.alaskaosro.org/resources/documents):
 - a. U.S. Coast Guard APC approval letter
 - b. APC Operating Procedures
 - c. Aleutian Island Waterways Safety Plan
2. Please ensure MonitoringCenter@AlaskaOSRO.org is added to the vessel's email account approved senders list or whitelist, to ensure the APC Monitoring Center can quickly contact the vessel if necessary.
3. Notice of Transit Notification Requirement: the vessel master shall provide 24-Hour Notice of Transit prior to entering the Western Alaska and/or Prince William Sound Captain of the Port Zones. The vessel master must submit the Notice of Transit via Email to MonitoringCenter@AlaskaOSRO.org. The following information must be included:
 - a. Last port of call (LPOC)
 - b. Next Port of Call (NPOC)
 - c. Intended route and estimate date of entry
 - d. Fuel oil types and quantity
 - e. Lube oil types and quantity
 - f. Cargo type and quantity
 - g. Location of last fuel received
 - h. Exhaust scrubber installed (yes or no)
 - i. Confirm vessel contact information (email and phone)
 - j. Confirm intended route will not deviate from the routing measures
 - k. Confirm onboard AIS is functioning properly and has been tested
4. The vessel master shall ensure the vessel's AIS is transmitting accurate information, including the vessel's type, dimensions, origination, and destination. Additionally, the AIS shall transmit proper information regarding the vessel's operation. "Not Under Command" shall not be transmitted unless a vessel has encountered "extraordinary circumstances" that interfere with the safe navigation of the vessel as per the International Rules of the Road. The Monitoring Center will contact the ship when AIS transmissions of "Not Under Command" are broadcast to determine the nature of the problem the vessel is experiencing.
5. Nothing in the Operating Procedures is intended to control or limit the ultimate authority of the vessel master in the safe navigation of his or her vessel or constrain the authority of the U.S. Coast Guard Captain of the Port where this APC applies.
6. The vessel shall comply with U.S. Coast Guard Marine Safety Alert MSA 03-09 that addressed precautions to be undertaken when switching propulsion fuels and prescribes fuel switching be completed outside of 12 miles offshore.

ALASKA CHADUX NETWORK ENROLLMENT

- Enrollment in the Alaska Chadux Network Alternative Planning Criteria [APC] allows the vessel owner/operator and the vessel (collectively, Planholder) to comply with the Code of Regulations, Title 33, Chapter 155, Subpart J, Nontank Vessel Response Plans in those areas covered by the Alaska Chadux Network APC.
- These Operating Procedures shall be observed by Nontank Vessels with Vessel Response Plan's citing the Alaska Chadux Network APC when transiting or operating within the Western Alaska and/or Prince William Sound Captain of the Port Zones. Per the Alaska Chadux Network Enrollment Agreement, vessels agree to comply with these Operating Procedures on all non-innocent passage voyages, in addition to meeting all U.S. Coast Guard reporting requirements, as part of their enrollment with Alaska Chadux Network. Vessels enrolled in the Alaska Chadux Network APC program on innocent passage are encouraged to comply with these operating procedures.

REPORTING OF HAZARDOUS CONDITION

The vessel master shall notify the appropriate U.S. Coast Guard Captain of the Port (e.g., Western Alaska and/or Prince William Sound) and the Monitoring Center of any hazardous conditions, mechanical or structural failures, reduced propulsion due to mechanical deficiencies, or need to conduct servicing or repairs while underway that affect propulsion, or other vessel casualties incurred while operating within the U.S. EEZ (200 miles) in the COTP Zones of Western Alaska and/or Prince William Sound.

- Per 33 CFR 160.216, a notification of hazardous conditions is required whenever there is a hazardous condition either on board a vessel or caused by a vessel or its operation, the owner, agent, vessel master, operator, or person in charge must **immediately** notify Coast Guard Sector Anchorage, and in addition submit any report required by 46 CFR 4.05-10.
- The vessel master shall ensure hourly updates and position reports are provided to the appropriate Captain of the Port (COTP) and the Monitoring Center until the situation is resolved to the satisfaction of the U.S. Coast Guard.
- A "Hazardous Condition" as defined in 33 CFR 160.202 which includes but is not limited to any condition that may adversely affect the safety and seaworthiness of any vessel, bridge, structure, or shore area or the environmental quality of any port, harbor, or navigable waterway of the United States. It may, but need not, involve collision, allision, fire, explosion, grounding, leaking, damage, injury or illness of a person aboard, or manning-shortage.

ACTIVATING A VESSEL RESPONSE PLAN

The vessel master shall activate the Vessel Response Plan (VRP) once the vessel's master has determined on board resources and personnel cannot meet the needs of an actual or potential incident. VRP activation occurs when the person in charge of the vessel contacts the Qualified Individual (QI) identified in the VRP and requests assistance. The QI and alternate QI are defined in regulation as having the authority to mobilize resources and consultative services identified in the VRP, and to act as the liaison with the Federal On Scene Coordinator (FOSC). The QI then assesses the situation through consultative services and mobilizes response resources identified in the VRP if the incident requires.

Alaska Chadux Network does not activate a VRP or supplant the vessel owner/operator (VO/O) – QI relationship. Alaska Chadux Network provides assistance to the QI, VO/O, OSRO (Oil Spill Removal Organization), SMFF provider (Salvage and Marine Firefighting), U.S. Coast Guard, and ADEC (Alaska Department of Environmental Conservation) by way of information on the vessel's location, vessel's status, and vessels in the area that may potentially be able to assist.

RISK MITIGATION

The Alaska Chadux Network APC Operating Procedures are designed to mitigate the risk of maritime incidents that result in oil spills. This document outlines risk mitigation measures a Nontank vessel master shall adhere to when transiting in Alaska waters where this APC applies.

An important component of the enhanced environmental protection and response capabilities provided by the Alaska Chadux Network APC is the maritime domain management for enrolled vessels. Accordingly, Alaska Chadux Network uses the Monitoring Center managed and operated by the Marine Exchange of Alaska to provide timely and accurate information on a participating vessel's location and operating status. The 24/7 Monitoring Center uses a network of terrestrial and satellite Automatic Identification System (AIS) receivers to monitor compliance with these operating procedures. When deviations and/or anomalies are detected, the Monitoring Center will contact the vessel master, owner/operator, and/or U.S. Coast Guard of the situation as agreed to by the owner/operator in the Alaska Chadux Network Enrollment agreement.

The vessel master shall adhere to the offshore routing noted below, as this is one means of reducing the risk of marine casualties. Distance offshore provides more time for repairs to be affected by the vessel's crew if a hazardous condition develops, provides time to respond to navigational errors, and allows for more time for an assist vessel to arrive on scene before a vessel grounds.

Vessels enrolled in the Alaska Chadux Network APC shall comply with the routing measures outlined below on all non-innocent passage voyages to/from U.S. Ports. Enrolled vessels on innocent passage transits are encouraged to comply with the following routing measures. If, in the rare case, the vessel master determines that in the interest of the safety of the vessel and/or crew due to severe weather it is unsafe to comply with the routing measures, a notice of deviation shall be made. In some cases, vessels that are more sensitive to heavy weather, due to certain types of cargo onboard, a deviation from the routing measures may be the safest risk reduction measure to be taken, when stability and vessel/crew safety are at risk.

VESSEL ROUTING MEASURES WHEN TRANSITING ONLY

When Nontank Vessels transiting the Western Alaska and/or Prince William Sound Captain of the Port Zones on non-innocent passage voyages, the vessel master shall comply with the following:

- Great Circle Route – Aleutian Islands: Vessels sailing on the Great Circle Route between Attu Island and Unimak Pass shall sail on a route that avoids transiting within the Aleutian Island Areas to be Avoided (ATBA), adopted by IMO January 1, 2016 (IMO SN.1/Circ.331). The only authorized passes while crossing the Aleutian Island chain are Unimak Pass, Amukta Pass, Amchitka Pass, and the pass between Buldir Island and Agattu Island. With the exception of Unimak Pass, vessels shall maintain a distance of 12 nautical miles or more offshore while transiting these authorized passes.
- Vessels transiting Bering Strait: Vessels transiting through the Bering Strait must follow the two-way routes, precautionary areas, and avoid Areas to be Avoided (ATBA) in the Bering Sea and Bering Strait, adopted by IMO and in effect December 1, 2018 ([IMO NCSR 5/3/7 dated 17 November 2017](#)). For vessels transiting North of the Bering Strait two-way routes, precautionary areas, and ATBA, these vessels shall sail on a route that ensures a maximum distance offshore until a minimum of 12 nautical miles offshore can be maintained. Vessels under the direction of a licensed ice-pilot shall communicate their route with the Monitoring Center (MonitoringCenter@AlaskaOSRO.org) prior to entering within 12 nautical miles of shore.
- All Remaining Waters: Vessels shall sail on a route that ensures a minimum distance of 12 nautical miles offshore is maintained. **Shelikof Strait is not an authorized pass for transit or a pass that may be used for storm avoidance.**
- Prince William Sound: Vessels shall sail on a route that ensures a minimum distance of 12 nautical miles offshore is maintained.
- Vessels on innocent passage are encouraged to follow the above-mentioned routing measures.

VESSEL ROUTING MEASURES WHEN CALLING ALASKA PORTS

When Nontank Vessels transiting the Western Alaska and/or Prince William Sound Captain of the Port Zones and calling a port or place in Alaska, an Advance Notice of these such arrivals shall be made to the U.S. Coast Guard in accordance with applicable U.S. Coast Guard regulations and to the Monitoring Center (MonitoringCenter@AlaskaOSRO.org). The vessel master shall comply with the following:

- Aleutian Islands: Prior to the direct entry into port and on departure from the port or place, vessels calling a port or place in the Aleutian Island Chain shall:
 - Avoid transiting within the Aleutian Island Areas to be Avoided (ATBA), adopted by IMO January 1, 2016 (IMO SN.1/Circ.331). The only authorized passes while crossing the Aleutian Island chain are Unimak Pass, Amukta Pass, Amchitka Pass, and the pass between Buldir Island and Agattu Island. With the exception of Unimak Pass, vessels shall maintain a distance of 12 nautical miles or more offshore while transiting these authorized passes.

- When entering or departing the port of Unalaska/Dutch Harbor, ensure vessels remain more than 12 nautical miles offshore from Bogoslof Island (53.56N 168.02W), located approximately 20 nautical miles north of Umnak Island.
- In addition to using the authorized passes noted in the above, U.S. Flagged Cargo Vessels sailing to/from Unalaska/Dutch Harbor may use Akutan Pass, provided the pilotage requirements are met.
- Western Alaska North of the Aleutian Islands (Bering Sea, Chukchi Sea and Beaufort Sea): Prior to the direct entry into port and on departure from the port or place, vessels calling a port or place in Bristol Bay, Norton Sound, Kotzebue Sound, Kivalina, or communities along the North Slope shall:
 - Follow the two-way routes, precautionary areas, and avoid Areas to be Avoided (ATBA) in the Bering Sea and Bering Strait, adopted by IMO and in effect December 1, 2018 ([IMO NCSR 5/3/7 dated 17 November 2017](#)), when transiting through the Bering Strait.
 - Sail on a route that ensures a minimum distance of 12 nautical miles offshore is maintained, with exception of the Bering Strait, where a minimum distance of 3 nautical miles offshore shall be maintained, when transiting North or South of the Bering Strait two-way routes, precautionary areas, and ATBA.
 - Sail on a route that ensures a maximum distance offshore until a minimum of 12 nautical miles offshore can be maintained or ensure vessel is under the direction of a licensed ice-pilot when transiting North of the Bering Strait two-way routes, precautionary areas, and ATBA.
- Gulf of Alaska: Prior to the direct entry into port or place and on departure from the port or place, vessels calling a port or place in Kodiak, Cook Inlet, Seward, Prince William Sound, or other Gulf of Alaska coastal communities shall:
 - Maintain a distance of 12 nautical miles or more offshore.
 - Only enter/exit through Kennedy Entrance when calling port(s) in Cook Inlet.
 - **Shelikof Strait is not an authorized pass for entry/exit to Cook Inlet.**

VESSEL ROUTING MEASURES WHEN CALLING MULTIPLE ALASKA PORTS

- When proceeding directly to and from Alaska ports, roadsteads or anchorages, vessels in this category shall maintain a minimum distance of:
 - 12 nautical miles offshore within the Aleutian Island Areas to be Avoided (ATBA).
 - 3 nautical miles offshore is maintained in all remaining waters.
 - **Shelikof Strait is not an authorized pass for entry/exit to Cook Inlet.**

Advance notice of these arrivals shall be made to the U.S. Coast Guard in accordance with applicable U.S. Coast Guard regulation and to the Monitoring Center (MonitoringCenter@AlaskaOSRO.org).

VESSEL ROUTING MEASURES FOR FISHING, TOWING, FERRIES, RESEARCH, AND OFFSHORE SUPPLY VESSELS

Vessels in this category (Fishing, Towing, Ferries, Research, and Offshore Supply Vessels) employed in Alaska operations conducted in or near coastal waters cannot feasibly or safely adhere to offshore routing measures that apply to larger vessels transiting Alaska waters, including vessels both operating and transiting to/from Alaskan ports or places. In place of offshore routing measures, this category of vessels will ensure they can readily be taken under tow through having suitable towing equipment on board as described below:

Towing Configuration and Training: The vessels to which these operating procedures apply shall ensure they have the tow lines, pennants, and/or bridles of adequate strength to be taken under tow or to tow another vessel of similar or smaller size. The vessel's crew shall also have the appropriate training to rig the vessel for towing and to conduct a towing evolution. These towing and training requirements are verified by Alaska Chadux Network.

Vessels in this category that are departing an Alaskan port or place and headed outside of Alaska waters/EEZ, shall comply with the routing measures in the previous section titled, "Vessel Routing Measures when Calling Alaska Ports", and avoid all Areas to be Avoided (ATBA).

VESSEL ROUTING MEASURES FOR SMALL PASSENGER VESSELS AND YACHTS

Operating procedures for small passenger vessels that operate close to shore and present a reduced risk of grounding and environmental damage due to their size, limited oil capacity, fuel type, seasonal operation, and their compliance with the applicable pilotage requirements. To accommodate the nearshore operations conducted by small passenger vessels and yachts, the distance offshore risk mitigation measures prescribed above do not apply when all of the following conditions apply:

- The vessel is less than 450' long and can be taken in tow if disabled
- The vessel's oil capacity is less than 6,000 barrels
- Notice of the intended route, projected dates of port calls and anchorages is provided 7 days in advance of each voyage to the appropriate U.S. Coast Guard Captain of the Port and Monitoring Center (MonitoringCenter@AlaskaOSRO.org). Any changes to the vessel's voyage plan within the 7-day notification period shall be requested using the process outlined in the Deviation Procedure described below.

TRANSITS IN WATERS WITH ICE CONDITIONS

The vessel's Master shall evaluate weather and ice conditions prior to entering Alaska waters and if ice may be encountered, shall ensure the vessel's hull is suitable for operating in the projected ice conditions and the following guidelines adhered to when ice is encountered. In specific areas where the Captain of the Port has issued Ice Guidelines or Rules, those procedures shall control where applicable.

- Ensure the proper operation of all vessel machinery in ice impacted waters and when ambient air temperatures is -40 degrees F or less. This includes but is not limited to emergency fire pumps, generators, and mooring winches.

- Ensure an adequate vessel draft is maintained to keep the vessel's sea suction and propeller well below the ice to prevent ice from sliding under the vessel.
- Unless the vessel is designed to break ice, the vessel should not force ice at any time. "Forcing Ice" is defined as making way through ice that is substantial enough to significantly slow the speed of the vessel, or when the vessel slows to 50% or less of the speed made before entering the ice. If the master, pilot or both believe the vessel is forcing ice, the master shall abort the transit and navigate to safer waters until more favorable conditions are present.
- Ensure compliance with any "Ice Rules" applicable to particular areas when issued by Captain of the Port, Western Alaska and in effect.
- When operating North of 60 degrees Latitude, IMO's International Code for Ships Operating in Polar Waters (Polar Code) is mandatory under both the International Convention for the Safety of Life at Sea (SOLAS) and the International Convention for the Prevention of Pollution from Ships (MARPOL). The Polar Code covers the full range of design, construction, equipment, operational, training, search and rescue and environmental protection matters relevant to ships operating in the inhospitable waters surrounding the two poles. The Polar Code entered into force on 1 January 2017. The Code is not mandatory for ships less than 500 Gross Tons, fishing vessels or those entitled to sovereign immunity. (<https://www.imo.org/en/OurWork/Safety/Pages/polar-code.aspx>)

DEVIATION PROCEDURE

In the rare case a Vessel Master determines the vessel will be unable to comply with the routing measures in the interest of the safety of the vessel and/or crew due to severe weather or ice, the Vessel Master shall notify the Monitoring Center (MonitoringCenter@AlaskaOSRO.org) with the below list of details prior to the deviation occurring. The Vessel Master shall provide answers to the list of details below on their deviation request. This deviation process provides satisfactory awareness and sufficient information to support pollution response services if necessary.

The vessel is requested to submit their weather routing guidance and associated charts to provide additional justification for the deviation request, if available. Global weather routing providers use complex algorithms to ensure vessels transit areas that are safest for the vessels and their cargo. If the vessel does not provide the below information prior to the deviation occurring, the Monitoring Center will communicate with the Vessel Master to obtain the necessary information. Vessels who do not follow the Operating Procedures and enter Areas to Be Avoided without obtaining a deviation request acknowledgement and are not responsive to communications with the Monitoring Center, may result in U.S. Coast Guard review and penalty.

U.S. Coast Guard Sector Anchorage released Marine Safety Information Bulletin (MSIB) 02-21 on July 30, 2021 titled "Coast Guard Enforcement of Alternative Planning Criteria Restricted Areas in the Western Alaska Captain of the Port Zone". Per MSIB 02-21, *"In order to preserve the safety buffer around high-risk areas, the Captain of the Port for Western Alaska has determined that transiting vessels must abide by the routing measures and operational guidelines established in approved APC plans. Deviations from these Coast Guard approved routing measures are reasonable when it is necessary for the Master to mitigate a significant threat to the vessel, cargo, or crew. Vessel masters are responsible for adequate voyage planning and should not plan deviations in advance to take shelter in high-risk areas. The increased risk to the*

environment is unacceptable. If a master is uncertain about the safety of their vessel while planning an upcoming transit through a weather system, they are encouraged to delay the voyage or alter their intended course in order to maintain compliance with their Vessel Response Plan. Any vessel that unreasonably deviates from its approved routing measures may be subject to enforcement action by the WAK COTP. Additionally, in accordance with 33 USC 2704(c), unreasonable deviations from approved routing as identified within an APC Plan may waive the responsible party's limit on liability should a discharge occur."

After other alternate routes have been evaluated and deviation from the reduced risk routing measures have been deemed absolutely necessary, the Vessel Master shall provide the following information within 24 hours (when possible) of starting the intended deviation:

1. Describe the early and substantial actions taken prior to deviation into Area To Be Avoided (example: stay in port, take another route, loiter outside ATBA).
2. Describe why deviation is needed, including Vessel Master's assessment of situation, (example: weather avoidance, ice avoidance etc.) and attach weather routing recommendation with associated charts, if available.
3. Provide Sea Height, Wind Speed and Wind Direction for the original route.
4. Provide Sea Height, Wind Speed and Wind Direction for deviation route.
5. Vessel intentions (continue transit, loiter/jog, shelter, anchor, etc.).
6. Closest intended distance from shore during this deviation.
7. Geographic reference or position of closest point to shore and ETA.
8. Current Latitude and Longitude (DMS)
9. Deviation Entry Latitude and Longitude (DMS)
10. Deviation Exit Latitude and Longitude (DMS)
11. Estimated date and time for deviation entry and exit.
12. Last Port of Call and Next Port of Call with ETA.
13. Type(s) and amount(s) of fuel oil and lubes aboard (bbls).
14. Type and amount of cargo onboard.
15. Confirm updated charts of area onboard.
16. Number of anchors and shots of chain onboard.
17. Confirm engine on standby and ready to maneuver when sheltering in place.
18. Confirm anchor(s) ready to deploy at all times.
19. Confirm vessel is not experiencing any engineering, structural, cargo difficulties and is fully seaworthy.
20. Confirm copy of Aleutian Island Waterways Safety Plan onboard. You can download a copy at: <https://www.alutianislandswsc.org/documents>

After the Monitoring Center receives the above information, an acknowledgment of deviation notification will be emailed to the Vessel Master, with the U.S. Coast Guard in copy, confirming the proper deviation information has been provided and the vessel may then deviate from the routing measures per their request. The Monitoring Center will observe the vessel's transit throughout their deviation. Please note that during the deviation, a communications schedule will be established. The Vessel Master shall provide status updates on minimum every 6 hours when the deviation is outside 12nm or every 2 hours when the deviation is inside 12nm, unless otherwise requested by the Monitoring Center. The Monitoring Center shall provide this information to the U.S. Coast Guard for their situational awareness.

IMPORTANT CONTACT INFORMATION

APC Monitoring Center (24/7)

Phone: (907) 463-4603

Email: MonitoringCenter@AlaskaOSRO.org

Coast Guard Captain of the Port Western Alaska

Phone: (907) 428-4200

Email: sector.anchorage@uscg.mil

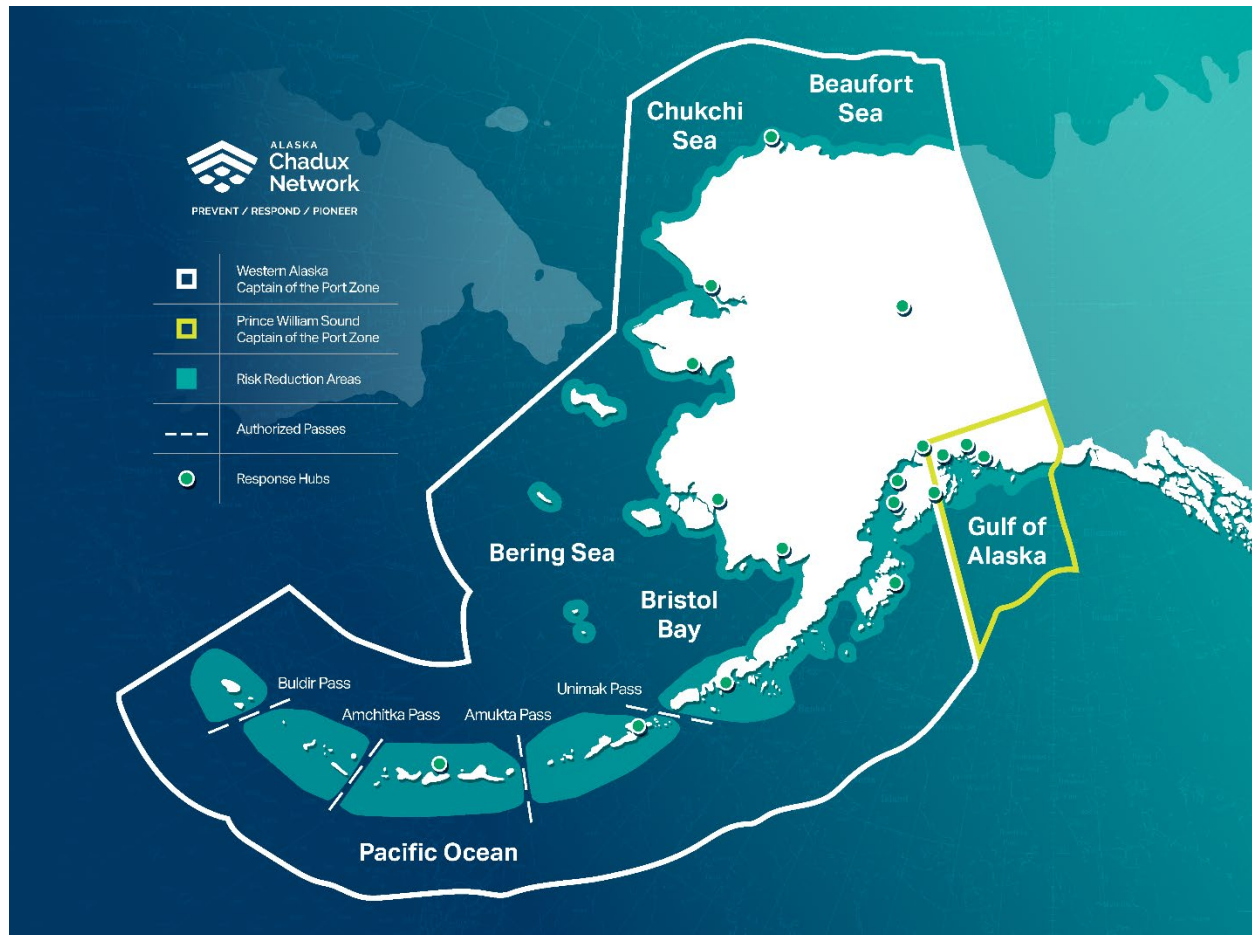
Coast Guard Captain of the Port Prince William Sound

Phone: (907) 835-7205

Email: D17-PF-MSUValdezCDO@uscg.mil

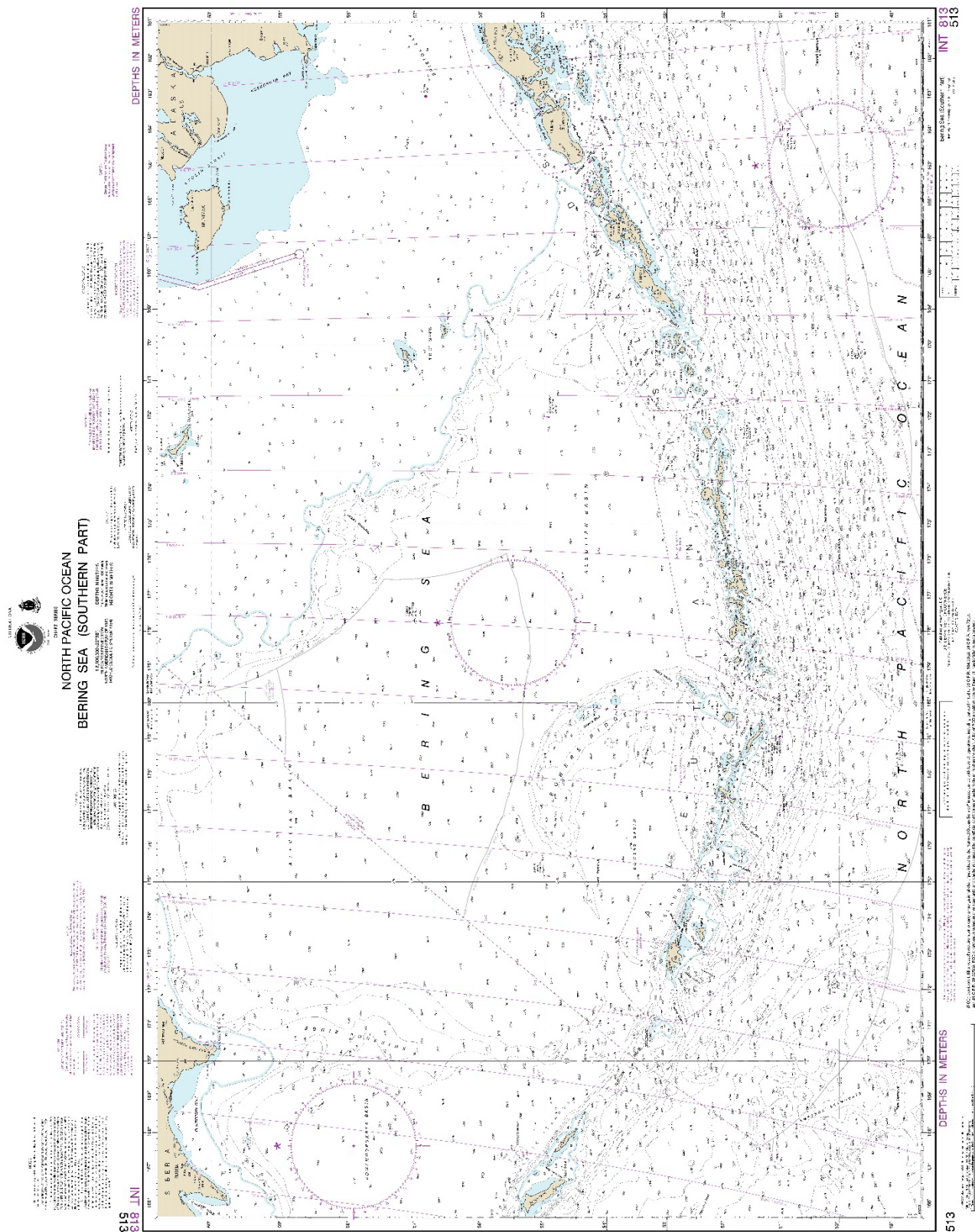
COVERAGE AREA

The Coverage Area includes the waters encompassed by the Western Alaska and Prince William Sound Captain of the Port Zones area as defined in 33 CFR§3.85-15. These waters encompass U.S. waters out to the 200-mile limit of the Exclusive Economic Zone (EEZ) in the North Pacific Ocean, Bering Sea, Chukchi Sea, Beaufort Sea, Cook Inlet, and Prince William Sound.



INFORMATION ON THE IMO ATBA, TWO-WAY ROUTES, AND PRECAUTIONARY AREAS

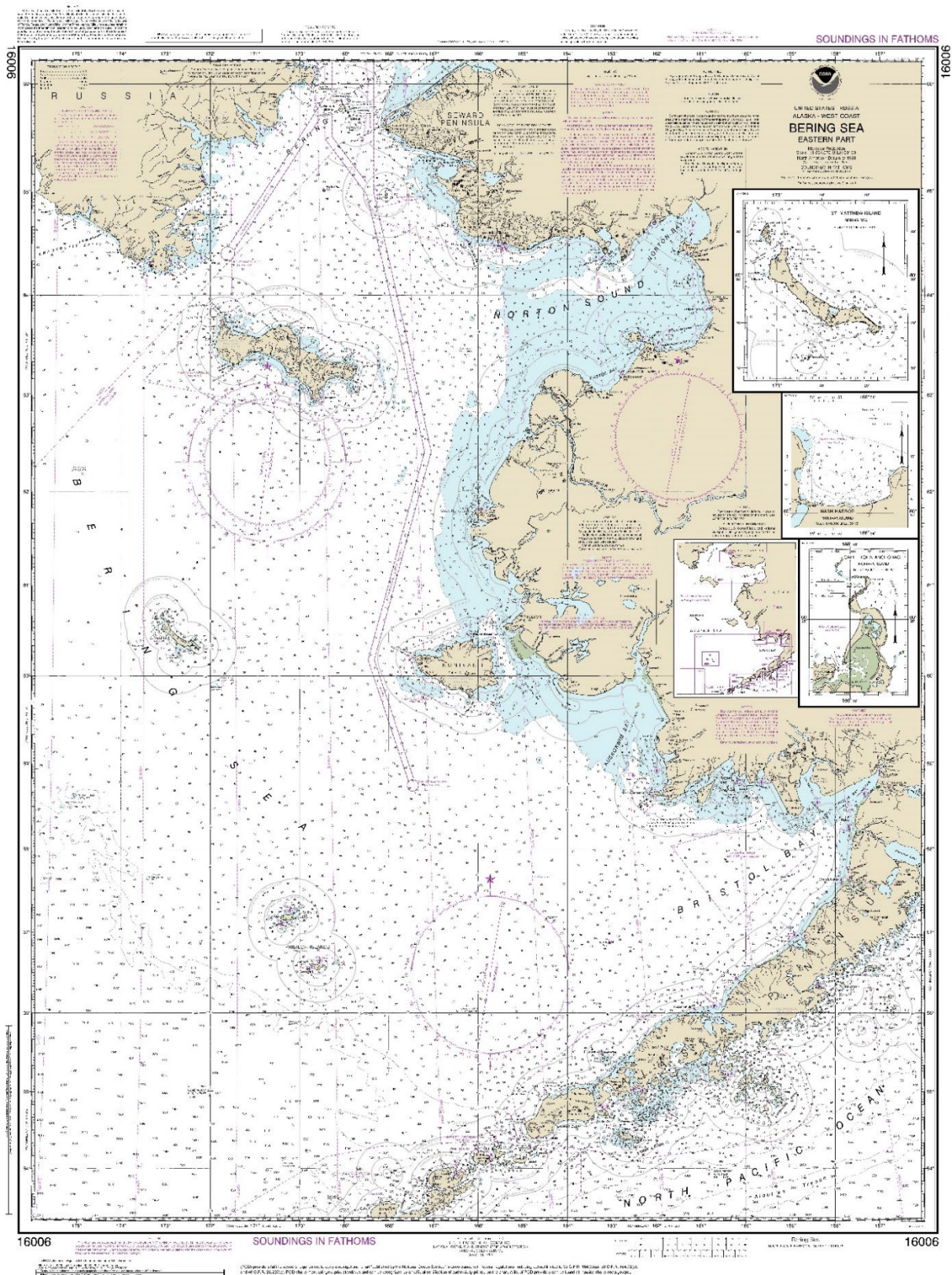
The following pages provides the coordinates and charts for the International Maritime Organization (IMO) Areas To Be Avoided (ATBA) in the Aleutian Island chain and the Bering Strait.



The International Maritime Organization (IMO) has adopted proposals to establish Areas To Be Avoided (ATBA) off the coast of Alaska, which are to be implemented at 000 UTC on 1 January 2016.

In order to reduce the risk of a marine casualty, resulting pollution and damage to the environment, all ships 400 gross tonnage and upwards, solely in transit, should avoid these areas.

<p>East Area To Be Avoided, joining the following positions:</p> <p>(9) 55° 40' ·94N 159° 32' ·43W (shore) (10) 55° 22' ·58N 158° 49' ·19W (11) 54° 41' ·38N 158° 31' ·66W (12) 54° 21' ·99N 159° 11' ·54W (1) 54° 07' ·94N 162° 19' ·48W (2) 54° 22' ·14N 164° 59' ·57W (3) 54° 43' ·51N 165° 09' ·77W (4) 54° 59' ·45N 165° 14' ·74W (5) 55° 43' ·20N 163° 38' ·05W (6) 56° 08' ·30N 162° 22' ·14W (7) 56° 19' ·83N 161° 04' ·29W (8) 56° 04' ·91N 160° 29' ·04W (shore)</p>	<p>Amchitka Area To Be Avoided, joining the following positions:</p> <p>(34) 51° 51' ·50N 174° 47' ·54E (35) 52° 15' ·54N 174° 53' ·24E (36) 52° 46' ·63N 176° 15' ·15E (37) 52° 57' ·86N 177° 37' ·91E (38) 52° 48' ·39N 180° 00' ·00E (39) 52° 36' ·31N 179° 22' ·09W (40) 51° 32' ·27N 179° 41' ·19W (41) 50° 33' ·65N 179° 33' ·12E (42) 50° 44' ·11N 178° 10' ·33E (43) 51° 21' ·00N 175° 59' ·57E and back to point (34)</p>
<p>Unalaska Area To Be Avoided, joining the following positions:</p> <p>(13) 51° 41' ·19N 170° 52' ·93W (14) 51° 53' ·22N 171° 32' ·60W (15) 52° 41' ·95N 171° 50' ·08W (16) 53° 17' ·64N 171° 50' ·31W (17) 54° 09' ·49N 169° 23' ·53W (18) 54° 17' ·62N 168° 11' ·32W (19) 54° 21' ·96N 165° 43' ·77W (20) 54° 11' ·15N 163° 41' ·63W (21) 53° 40' ·84N 163° 41' ·67W (22) 53° 24' ·39N 164° 07' ·37W (23) 52° 46' ·62N 165° 56' ·33W (24) 51° 57' ·40N 168° 57' ·60W and back to point (13)</p>	<p>West Area To Be Avoided, joining the following positions:</p> <p>(44) 53° 40' ·90N 171° 50' ·53E (45) 53° 49' ·20N 172° 29' ·47E (46) 53° 47' ·85N 173° 25' ·48E (47) 53° 24' ·41N 174° 54' ·79E (48) 53° 07' ·49N 175° 18' ·74E (49) 52° 19' ·54N 174° 51' ·62E (50) 52° 08' ·23N 174° 21' ·75E (51) 51° 40' ·59N 172° 45' ·27E (52) 52° 20' ·90N 171° 29' ·34E (53) 52° 40' ·53N 171° 10' ·34E (54) 53° 00' ·92N 171° 06' ·20E (55) 53° 23' ·69N 171° 19' ·71E and back to point (44)</p>
<p>Atka Area To Be Avoided, joining the following positions:</p> <p>(25) 50° 38' ·55N 180° 00' ·00E (26) 51° 11' ·83N 179° 50' ·46W (27) 52° 39' ·35N 178° 39' ·78W (28) 53° 13' ·18N 173° 49' ·18W (29) 53° 02' ·71N 172° 51' ·16W (30) 52° 41' ·07N 171° 56' ·15W (31) 51° 37' ·86N 171° 34' ·53W (32) 51° 15' ·27N 172° 36' ·40W (33) 50° 21' ·63N 179° 24' ·20W and back to point (25)</p>	<p>(All positions are referred to NAD83 DATUM)</p>



GEOGRAPHICAL COORDINATES OF THE TWO-WAY ROUTES AND PRECAUTIONARY AREAS IN THE BERING SEA AND BERING STRAIT

Description of the two-way routes and precautionary areas from NCSR 5/3/7, Annex 3. The ships' routing system consists of six (6) recommendatory two-way routes and six (6) precautionary areas in the Bering Sea and Bering Strait. A list of the geographical coordinates of the two-way routes and precautionary areas is provided below. Note: These routing measures are recommended for ships of 400 gross tonnage and above.

(a) A precautionary area "A" is established, the waters contained within a circle of radius 4.00 miles centered at geographical position 58°45'.00 N, 167°27'.81 W.	
(b) A two-way route, connecting with precautionary area "A" and precautionary area "B", is established between the following geographical positions:	
(1) 58°48'.91 N 167°26'.26 W (2) 60°10'.86 N 168°19'.58 W (3) 61°29'.47 N 167°35'.89 W (4) 62°25'.14 N 167°03'.13 W (5) 63°30'.44 N 167°33'.86 W (6) 64°56'.08 N 168°18'.60 W	(7) 64°55'.19 N 168° 27'.77 W (8) 63°29'.57 N 167° 42'.57 W (9) 62°25'.26 N 167° 11'.99 W (10) 61°30'.52 N 167° 43'.95 W (11) 60°10'.74 N 168° 27'.94 W (12) 58°47'.65 N 167° 33'.56 W
(c) A precautionary area "B" is established, which is bounded by a line connecting the following geographical positions:	
(6) 64°56'.08 N 168°18'.60 W (13) 64°59'.22 N 168°20'.29 W (14) 65°05'.00 N 168°20'.30 W (15) 65°05'.00 N 168°29'.75 W	(16) 65°02'.60 N 168°37'.28 W (17) 64°58'.14 N 168°29'.36 W (7) 64°55'.19 N 168°27'.77 W thence back to the point of beginning (6).
(d) A two-way route, connecting with precautionary area "B" and precautionary area "C", is established between the following geographical positions:	
(14) 65°05'.00 N 168°20'.30 W (18) 66°26'.57 N 168°20'.30 W	(19) 66°26'.57 N 168°29'.75 W (15) 65°05'.00 N 168°29'.75 W
(e) A precautionary area "C" is established, the waters contained within a circle of radius 4.00 miles centered at geographical position 66°30'.00 N, 168°25'.00 W.	
(f) A two-way route, connecting with precautionary area "C" and precautionary area "D", is established between the following geographical positions:	
(20) 66°30'.64 N 168°34'.79 W (21) 66°24'.59 N 169°14'.72 W	(22) 66° 20'.83 N 169°11'.21 W (23) 66° 26'.90 N 168°31'.34 W
(g) A precautionary area "D" is established, the waters contained within a circle of radius 4.00 miles centered at geographical position 66°21'.50 N, 169°21'.00 W.	
(h) A two-way route, connecting with precautionary area "D" and precautionary area "E", is established between the following geographical positions:	
(24) 66°18'.05 N 169°16'.11 W (25) 66°18'.05 N 169°25'.87 W	(26) 65°56'.20 N 169°25'.87 W (27) 65°56'.20 N 169°16'.11 W
(i) A precautionary area "E" is established, which is bounded by a line connecting the following geographical positions:	
(26) 65°56'.20 N 169°25'.87 W (27) 65°56'.20 N 169°16'.11 W (28) 65°45'.52 N 169°16'.11 W	(29) 65°45'.52 N 169°25'.87 W (30) 65°47'.69 N 169°34'.01 W (31) 65°52'.82 N 169°25'.87 W thence back to the point of beginning (26).
(j) A two-way route, connecting with precautionary area "E" and precautionary area "B", is established between the following geographical positions:	
(28) 65°45'.52 N 169°16'.11 W (29) 65°45'.52 N 169°25'.87 W (32) 65°29'.65 N 169°25'.87 W	(16) 65°02'.60 N 168°37'.28 W (15) 65°05'.00 N 168°29'.75 W (33) 65°30'.71 N 169°16'.11 W
(k) A two-way route, connecting with precautionary area "E" and precautionary area "F", is established between the following geographical positions:	
(29) 65°45'.52 N 169°25'.87 W (30) 65°47'.69 N 169°34'.01 W	(34) 64°28'.31 N 171°36'.35 W (35) 64°26'.14 N 171°28'.60 W
(l) A precautionary area "F" is established, the waters contained within a circle of radius 4.00 miles centered at geographical position 64°24'.36 N, 171°36'.61 W.	
Note: All geographical positions are based on World Geodetic System 1984 Datum (WGS 84)	